



THE URBAN DISTRICT COUNCIL OF GOOLE,

Annual Report

ON THE

Health of Goole,

For the Year 1909,

BY

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B.Ch., D.P.H.,

MEDICAL OFFICER OF HEALTH.

Goole :

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Names of the Councillors,

————— 1909-1910. —————

Mr. Councillor W. E. GRAYBURN (Chairman).
„ G. E. HILL (Vice-Chairman).

North Ward.

Mr. Councillor J. B. TIMM.
„ G. C. SHORT.
„ L. HOLMES.

South Ward.

Mr. Councillor J. CHALMERS.
„ R. G. BICKERTON.
„ G. E. HILL.

East Ward.

Mr. Councillor R. H. HUNTINGTON.
„ S. WETHERALL.
„ F. CHAMBERS.

West Ward.

Mr. Councillor W. JACKSON.
„ T. C. TURTON.
„ G. BICKERTON.

Central Ward.

Mr. Councillor W. E. GRAYBURN.
„ F. B. GLEW.
„ S. G. BEVAN.

Officials of the Health Department:

A. M. ERSKINE, M.D.	...	...	...	Medical Officer of Health
W. H. ELLIS	...	...	...	Sanitary Inspector.

Sanatorium Staff:

A. M. ERSKINE, M.D.	...	...	...	Medical Superintendent.
Miss WRIGHT	...	...	...	Matron.
Miss ARNOLD	...	...	...	Charge Nurse.

SUMMARY

OF

Vital and Mortal Statistics.

Area	....	....	....	....	....	1,218 acres
Estimated Population			....	....	....	18,868
Marriages	....	....	....	....	163	rate 9
Births	....	....	....	....	667	rate 35·3
Deaths	....	....	....	....	254	rate 13·4
Infantile Mortality....			....	....	62	rate 93
Zymotic Death-rate			....	....	....	·9
Phthisis Death-rate			....	....	....	·9
Number of Notifications			....	....	....	146
Rateable Value	....	....	....	....	£74,831	8s. 2d.
District Rate	....	....	....	....	....	3/4
Poor Rate	....	....	....	....	....	3/2

Vital Statistics for the Year 1909.

1909.	<i>ENGLAND AND WALES.</i>	Great Towns (76).	Smaller Towns (143.)	England and Wales <i>less the 219 Towns.</i>
BIRTH-RATE	25·6*	25·7	24·8	25·6
DEATH-RATE	14·5*	14·7	13·9	14·5
Zymotic Death-Rate ...	1·12	1·42	1·08	0·80
Infantile Mortality (per 1,000 births)	109*	118	111	98

* Lowest ever recorded.

To the Chairman and Members of the Goole Urban District Council.

GENTLEMEN,

I have the honour to submit for your information and consideration my Report on the Public Health and Sanitary Condition of the Urban District of Goole for the year 1909.

The birth-rate for the year is 35·3, a slight decrease compared with the previous year.

The death-rate for the year is 13·4, a marked decrease compared with the previous year, and the lowest on record by a wide margin.

The death-rate of children under one year of age is 93, also a marked decrease compared with the previous year, and the lowest on record.

The zymotic death-rate is ·9, a considerable decrease compared with former years.

The phthisis death-rate is ·9.

I have also to report the gratifying fact that we are fast ridding the town of diphtheria. For the past nine months the disease has given little trouble.

On the 19th June the Council adopted the voluntary notification of consumption.

I congratulate Mr. Ellis, your Sanitary Inspector, on the excellence of his report, and taken in conjunction with mine the whole will be found to be continuous, and prepared in accordance with the detailed instructions of the Local Government Board.

I commend to your notice my suggestion on the County Council Table C in regard to better access to Westfield Banks as a playground for the children; and also to the fact that an urgent necessity exists for the provision of a municipal Lodging House. The existing ones are most unsatisfactory.

And remain,

Your obedient servant,

A. M. ERSKINE.

Presented 16th February, 1910.

ANNUAL REPORT, 1909.

Physical Features and General Character of the District.

The town of Goole is situated at the extreme eastern part of the West Riding, in the northern part of the flat alluvial plain of the Vale of York. It is placed on the western bank of the River Ouse, and lies at a lower level than the waters of the ordinary tides. These are prevented from overflowing by artificially raised banks. The general level of the town is ten feet above sea level. The stratum lying immediately under the natural soil is a layer of peat, resting upon a thick bed of stiff clay.

Chief Occupation of the Inhabitants.

Being a seaport town the chief occupation of the inhabitants is directly or indirectly associated with shipping. There are three shipbuilding and repairing yards, and two chemical works; in addition, Goole is the centre of an important agricultural district, and during the year under review dock extension works have been in progress, causing a considerable addition of navvies to the population. None of these occupations exert any prejudicial influence on the public health.

Population.

During 1908 a census of the town was taken, which showed that the population was 18,582.

The proportion of persons per house at the census was 4·6.

The natural increase of population, i.e., the excess of births over deaths during 1909 was 413, compared with 361 in 1908.

There have been comparatively few empty houses during the year. Mr. Buck has kindly furnished me with the following return :

				Houses in occupation.
East Ward...	...	...	...	1208
North Ward	...	...	...	1134
West Ward	...	...	...	643
Central Ward	...	...	...	428
South Ward	...	...	...	961
				<hr/>
Total ...				4384

I have estimated the population to the middle of the year as 18,868, and the birth and death rates are calculated upon this estimate.

Births.

The total number of births registered during the year was 667, giving a birth rate of 35·3 per 1000 of the population.

During the preceding year there were 673 births, with a birth rate of 36·2 per 1000 of the population, and the average for the past ten years is 607, giving a birth rate of 35·3, exactly the same figure as the birth rate for 1909.

Of the births 338 were males, and 329 were females.

Arranged according to Wards, 176 were registered in the North Ward, 166 in the South Ward, 183 in the East Ward, 73 in the West Ward, and 69 in the Central Ward.

These figures show a considerable increase in the North and East Wards, a slight decrease in the South Ward, a continued decrease in the West Ward, and the same number in the Central Ward as in the previous year.

There were 26 illegitimate births, compared with 33 in the previous year.

30 still-born children were buried in the cemetery, compared with 19 in 1908.

The average birth rate for the 143 smaller towns of England and Wales during 1908 was 24·8.

Marriages.

The number of marriages celebrated in the town during 1909 was 163, being an annual rate of 9 persons married per 1000 of the population.

Deaths.

The gross total number of deaths registered during the year was 261, giving a death rate of 13·8 per 1000 of the population.

If the deaths of 16 persons not belonging to the town (non-residents) be deducted, and those of 9 persons who died in public institutions outside the district (residents) be added, the net total number of deaths was 254, giving a nett death rate of 13·4 per 1000 of the population.

The institutions from which the deaths of "residents" outside were obtained were: The Leeds General Infirmary, The Hull Infirmary, and the West Riding Asylums.

Of the deaths 135 were males, and 118 females. Last year the death rate was 16·7, and the average for the past ten years is 18·0.

This abnormally low death rate is the principal feature of my report, and nothing approaching this low figure has been previously recorded for the town, so that I may be pardoned if I refer with pride to this pleasing fact, which is a very gratifying record for the Health Department, over which it is my privilege to preside.

To further enhance the value of these figures I have compiled the following table for Goole, in order to correct the crude death rate. It is based on the number of people living in the town at different ages and of different sexes, as it is sufficiently obvious that a town containing a larger than average proportion of infants and old people will have a higher death rate than if the average distribution prevailed.

The Registrar General has given these figures for all the large English towns, but not for the smaller.

Calculations Determining Factor for
Correcting Crude Death-Rate.

Age Group. (1)	Mean Annual Death-rate in Eng-land and Wales 1891-1900 per 1000 living at each age-group. (2) (3)		Population in each age-group at the Census of 1901. (4) (5)		Calculated No. of Deaths on popula-tion of 1901. (6) (7)	
	Males.	Females	Males.	Females	Males.	Females.
Under 5	(a) 62·71	52·30	(x) 1123	1157	(y) 70 42	69·51
5 — 10	4·31	4·37	1076	1058	4·63	4 62
10 — 15	2·45	2 57	924	989	2 26	2·54
15 — 20	3 79	3 67	757	808	2·86	2 96
20 — 25	5·06	4·46	651	727	3 29	3 24
25 — 35	6 76	6 08	1194	1342	8 07	8·15
35 — 45	11 50	9·59	944	926	10·85	8·88
45 — 55	18·95	14·74	671	701	12 71	10·33
55 — 65	34·95	28 44	471	421	16·46	11·97
65 — 75	70·39	60·72	229	250	16·11	15·18
75 and upwards	160·09	146·46	70	87	11·20	12·74
All ages	19·32	17·14	8110	8466	158·86	141 12
	18·19		(b) 16576		(c) 299 98	

Standard Death Rate = $\frac{c \times 1000}{b}$ = d 18·09

Factor for Correction = $\frac{18·19}{d}$ = f 1·0055

Thus the factor for correction for Goole is 1·0055, and this this figure multiplied by the crude death rate of 13·4, gives a corrected death-rate of 13·47.

On looking over some old reports I find that Goole was invested with Urban powers on September 29th, 1875, and the first meeting of the Local Board was held on November 10th, 1875. This was the year in which the Public Health Act, 1875, came into operation, which is the foundation of all modern sanitary administration.

The death rate of Goole in 1875 was 26·9 per 1000 of the population, so that in 34 years this rate has been reduced exactly one-half. Probably few towns similarly circumstanced have a better record than this.

The death rate for 1908 was 16·7, and the average for the past ten years is 18·0 per 1000 of the population.

The death rate for the 143 smaller towns of England and Wales during 1909 was 13·9.

Arranged according to Wards 54 deaths were registered in the North Ward, 49 in the South Ward, 76 in the East Ward, 29 in the West Ward, and 46 in the Central Ward.

The Central, West and East Wards show very little change from the previous year, the marked diminution has taken place in the North Ward, and more particularly in the South Ward.

Practically the great saving of life has been effected in children under one year of age, there being 40 less deaths in infants than during the preceding year.

Comparing the totals of 1909 with those of 1908 it will be observed that there was a decrease in 1909 from the following diseases :

	Total deaths in 1909.	Total deaths in 1908.	Decrease in 1908.
Measles ...	1	29	28
Scarlet Fever ...	0	1	1
Whooping Cough...	4	12	8
Diphtheria ...	5	6	1
Typhoid Fever ...	1	2	1
Diarrhoea ...	4	18	14
Venereal Disease ...	3	8	5

so that the non-notifiable but highly infectious diseases, measles, whooping cough and diarrhoea, show a diminution of 50 less deaths in 1909 compared with 1908.

Climatic influences probably account for the diminished number of deaths from diarrhoea, but not so in the case of measles and whooping cough. Again, the conviction is forced upon one that

something in the nature of compulsory notification should be adopted as a means to combat the loss of life from these two diseases. The incidence of these diseases in 1908 was greatest in the South Ward, and less so in the North and East Wards, so that an explanation is at once found as to the means to be adopted to lessen the death rate.

The total number of deaths under one year of age was 62, compared with 102 in 1908, 78 in 1907, 98 in 1906, 88 in 1905, 151 in 1904, and an average of 100 for the past ten years.

The total number of deaths under the age of five years was 90, compared with 159 in 1908, thus emphasizing the previous remarks as regards measles and whooping cough.

In 1909 there were 90 deaths under five years.

„ 1908	„	159	„
„ 1907	„	105	„
„ 1906	„	107	„
„ 1905	„	117	„
„ 1904	„	190	„
„ 1903	„	114	„
„ 1902	„	148	„

These figures speak for themselves.

Inquests.

21 inquests were held during the year. Of these deaths 8 were due to natural causes, 5 to drowning, 3 to burns, 2 accidents, 1 chicken-pox, 1 overlying, and 1 choking.

Local Government Board's Tables.

In the five tables which follow, deaths occurring in public institutions are allotted to the different Wards, or other localities, according to the addresses of the deceased, when possible. It will be noticed that deaths of "non-residents" are excluded from certain calculations, and deaths of "residents" are included. The Board defines "non-residents" as persons brought into the district on account of illness, and dying there, and "residents" as persons who have been taken out of the district on account of illness, and have died elsewhere.

The list of institutions furnishing such returns were the Hull Royal Infirmary, the Leeds Infirmary, and the West Riding Asylums.

TABLE I.

VITAL STATISTICS DURING 1909 AND PREVIOUS YEARS IN
THE URBAN DISTRICT OF GOOLE.

Year.	Population estimated to Middle of each year.	BIRTHS.		DEATHS UNDER ONE YEAR OF AGE.		DEATHS AT ALL AGES. TOTAL.		Deaths in Public Institutions.	Deaths of Non-Residents registered in District.	Deaths of Residents regis- tered beyond District.	DEATHS AT ALL AGES. NET.	
		Number.	Rate.*	Number.	Rate per 1000 Births registered.	Number.	Rate.*				Number.	Rate.*
1899 ..	16337	606	37.0	119	196	351	21.4	39	20	2	333	20.3
1900 ..	16456	580	35.2	76	131	299	18.1	48	13	3	289	17.5
1901 ..	16576	642	38.7	95	145	295	17.6	30	9	7	293	17.6
1902 ..	16723	563	33.6	106	183	319	19.0	31	9	3	313	18.8
1903 ..	16850	594	35.2	89	149	300	17.8	45	8	4	295	17.5
1904 ..	17000	567	33.9	151	266	397	23.3	47	16	3	381	22.4
1905 ..	17500	577	32.9	88	152	301	17.2	31	11	5	293	16.7
1906 ..	17800	660	37.0	98	148	308	17.3	40	12	4	300	16.8
1907 ..	18000	610	33.8	78	127	282	15.6	32	9	12	285	15.8
1908 ..	18582	673	36.2	102	151	320	17.2	47	17	9	312	16.7
Av'ages '99-1908	17182	607	35.3	100	165	317	18.4	39	12	5	309	18.0
1909	18868	667	35.3	62	93	261	13.8	40	16	9	254	13.4

* Rates calculated per 1,000 of estimated population.

Area of District in acres (exclusive of area covered by water) .. 1,218 Acres.

Total population at all ages	16,576	} At Census of 1901.
Number of inhabited houses	3,538	
Average number of persons per house	4.68	

TABLE II

VITAL STATISTICS OF SEPARATE LOCALITIES IN 1909 AND PREVIOUS YEARS IN THE URBAN DISTRICT OF GOOLE.

NAMES OF LOCALITIES.	NORTH.				SOUTH.				EAST.				WEST.				CENTRAL.			
	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all ages.	Deaths under 1 year.
1901	4354	177	77	26	4100	170	74	26	3667	118	62	19	2722	116	45	17	1740	61	29	5
1902	4388	148	86	21	4165	179	84	33	3660	106	71	22	2770	85	36	18	1740	46	42	12
1903	4410	154	71	18	4200	175	95	35	3690	118	57	17	2810	88	34	12	1740	59	38	7
1904	4410	153	96	44	4244	144	111	38	3700	124	87	35	2822	89	37	18	1764	57	50	16
1905	4525	100	62	18	4367	152	97	29	3903	118	64	14	2900	86	34	13	1800	61	36	14
1906	4600	159	66	21	4470	205	81	31	4010	140	66	19	2920	82	38	15	1800	71	49	12
1907	4640	156	65	14	4500	157	82	28	4310	146	60	19	2950	89	35	7	1600	60	44	10
1908	4714	147	70	25	4301	186	90	28	5026	193	78	24	2883	78	25	6	1658	69	48	19
Average of Years 1901 to 1908	4505	157	74	23	4293	171	89	31	4003	133	68	21	2847	89	36	13	1730	60	39	12
1909	4795	176	54	16	4380	166	49	17	5100	183	76	17	2913	73	29	3	1630	69	46	9

TABLE IV.

CAUSES OF, AND AGES AT, DEATH DURING YEAR 1909,
IN THE URBAN DISTRICT OF GOOLE.

CAUSES OF DEATH.	DEATHS IN WHOLE DISTRICT AT SUBJOINED AGES							DEATHS IN LOCALITIES.					Deaths in Public Institutions.
	All Ages.	Under 1.	1 and under 5.	5 and under 15	15 and under 25	25 and under 65	65 and upwards	North.	South.	East.	West.	Central.	
Small-pox ..	1	..	1	..	..	..	..	1	..	..	..	..	..
Measles ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Scarlet Fever ..	4	1	3	..	..	..	..	1	..	2	..	1	..
Whooping Cough ..	5	..	1	4	..	..	..	1	..	1	3	..	4
Diphtheria and Membranous Croup	..	..	..	..	..	..	..	..	..	..	..	..	..
Fever { Typhus ..	1	..	..	..	..	1	..	..	..	1	..	..	1
{ Enteric ..	..	..	..	..	..	..	..	..	..	..	..	..	..
{ Other Continued ..	2	..	..	..	..	2	..	1	1	..	..	..	..
Epidemic Influenza ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Plague ..	4	1	3	..	1	..	..	1	..	2	..	1	..
Diarrhoea ..	2	..	1	..	1	..	..	1	..	1	..	..	..
Enteritis ..	1	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever ..	1	..	..	..	..	..	..	..	..	..	..	..	1
Erysipelas ..	1	..	..	..	..	1	..	..	..	..	1	..	..
Phthisis (Pulmonary Tuberculosis)	17	..	2	1	1	12	1	4	3	3	3	4	3
Other Tubercular Diseases ..	14	5	3	2	1	3	7	1	2	5	3	3	2
Cancer, Malignant Disease ..	14	8	..	..	..	4	9	6	1	3	2	2	..
Bronchitis ..	21	12	9	2	..	1	3	2	7	9	2	4	1
Pneumonia ..	27	..	..	..	..	..	..	..	..	8	1	4	..
Pleurisy ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Diseases of Respiratory Organs ..	3	..	..	..	..	..	..	..	..	..	..	..	..
Alcoholism, Cirrhosis of Liver ..	..	2	..	..	..	..	1	..	2	1	..	..	..
Veneral Diseases ..	15	15	..	..	..	..	..	9	2	2	..	3	..
Premature Birth ..	4	..	..	1	1	3	..	6	1	1	2	1	1
Diseases and Accidents of Parturition ..	25	1	2	2	5	14	5	1	2	9	1	6	3
Heart Diseases ..	12	..	..	..	..	6	1	..	2	1	1	7	..
Accidents ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Suicides ..	11	..	..	..	..	..	11	2	1	4	2	2	..
Old Age ..	1	1	..	..	..	..	..	..	..	..	..	..	..
Chicken Pox ..	69	16	3	1	1	31	17	10	20	23	9	7	21
All other causes ..	..	..	..	..	..	..	..	..	..	..	..	..	..
All causes ..	254	62	28	13	11	85	55	54	49	76	29	46	21

Infantile Mortality.

The total number of deaths under one year of age was 62, or 93 per 1000 births registered. or one fourth of the nett total number of deaths at all ages.

In 1908 there were 102 deaths, or 151 per 1000 births.

„ 1907	„	78	„	127	„
„ 1906	„	98	„	148	„
„ 1905	„	88	„	152	„
„ 1904	„	151	„	266	„

And the average for the past ten years is 100, or 165 per 1000 births registered.

There is a great satisfaction in being able to record such a marked decrease of deaths amongst infants, and as I have previously stated the lowness of our total death rate is due to this great saving of the lives of infants. Nothing approaching this record has hitherto been made for the town of Goole. We aimed previously at reducing the comparative figure to under 100, and now we have the gratification of placing it well under that figure. The only fear one has is that it will be difficult to maintain, but none the less we must strive to keep it up. A reference to the table above shows that for the year 1904 there were 266 deaths of infants per 1000 births, contrast this with the figure of 93 per 1000 births for the year under review.

Arranged according to the Wards there were 16 deaths in the North Ward, giving an infantile mortality rate of 91 per 1000 births registered.

In the North Ward there were 17 deaths, giving a rate of 102.

In the East Ward there were 17 deaths, giving a rate of 93.

In the West Ward there were 3 deaths, giving a rate of 41.

In the Central Ward there were 9 deaths, giving a rate of 130.

Again the Central Ward comes out highest and the West Ward lowest, and the difference between 130 and 41 is very marked. Last year I stated : “ The West Ward stands out alone in a very prominent position, and if we accept this as a criterion of what can be done in Goole the other Wards fall very far short.”

A reference to Table V. gives in detail the causes of the deaths under one year of age, and if we compare this table with the corresponding table for 1908 we find :

			Deaths 1909.		Deaths 1908.
Measles	...	...	0	...	5
Whooping Cough	...	...	2	...	4
Diarrhoea	...	...	1	...	16
Gastritis	...	...	0	...	6
Wasting	...	...	5	...	10
Tubercular Diseases	...	...	5	...	11
Syphilis	...	...	2	...	8

Making a difference of 45 deaths in the two years, from more or less preventible diseases.

Meteorological conditions would account for the absence of deaths from diarrhoea, and we were fortunate in escaping epidemics of measles and whooping cough.

There were only three deaths amongst illegitimate children during the year.

Comparing our figures with the infantile mortality rate of the smaller towns of England and Wales we find the latter figure to be 111.

TABLE V.

INFANTILE MORTALITY DURING THE YEAR 1909.
DEATHS FROM STATED CAUSES IN WEEKS AND MONTHS UNDER ONE
YEAR OF AGE IN THE URBAN DISTRICT OF GOOLE.

CAUSE OF DEATH.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total Deaths under One Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under One Year.
Common Infectious Diseases—																	
Chicken-pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Measles ...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...
Whooping Cough ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhoeal Diseases—																	
Diarrhoea, all forms ...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
Wasting Diseases—																	
Premature Birth ...	10	2	...	2	14	...	...	...	...	...	...	...	...	...	...	1	14
Congenital Defects ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4
Atrophy, Debility, Marasmus	3	1	...	1	5	...	...	...	...	...	...	...	...	...	...	...	5
Tuberculous Diseases—																	
Tuberculous Meningitis ...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
Tuberculous Peritonitis: } Tuberculous Mesenterica }	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Causes—																	
Syphilis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis (not Tuberculous)	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...
Convulsions ...	2	1	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...
Bronchitis ...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...
Pneumonia ...	...	...	...	1	1	...	1	3	1	...	1	...	...	2	1	...	...
Suffocation, overlying ...	1	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...
Other Causes ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Deaths from all Causes	16	4	0	5	25	3	5	6	2	2	3	6	1	3	3	3	62

Population Estimated to middle of 1909 -18,868

Births in the Year { legitimate 641
illegitimate 26.

Deaths in the Year of { legitimate infants 59.
illegitimate infants 3.

Deaths from all Causes at all Ages .. 254.

Infectious Diseases.

Return of the number of cases of infectious disease notified to the Medical Officer of Health during the year 1909, and of the deaths from the diseases notified :

Notifiable Diseases.				Cases.	Deaths.
Diphtheria	...	...	...	88	5
Scarlet Fever	...	...	...	29	0
Erysipelas	...	...	...	19	1
Enteric Fever	...	...	...	6	1
Puerperal Fever	...	...	...	4	1
				146	8
Not Notifiable.				Deaths.	
Measles	...	...	...	...	1
Whooping Cough	...	...	...	...	4
Diarrhoea	...	...	...	...	4
				9	

Giving a zymotic death rate (the death rate from the seven principal zymotic diseases, namely, small-pox, measles, scarlet fever, diphtheria, whooping cough, fever, and diarrhoea) of .9.

Along with the total death rate, and the death rate amongst infants, I have to record a very low death rate in those attacked with infectious disease.

In 1902 this rate was 2.6 ; 1903, 1.3 ; 1904, 6.5 ; 1905, 1.8 ; 1906, 3.1 ; 1907, 1.4 ; 1908, 3.7.

The zymotic death rate for the 142 smaller towns of England and Wales during 1909 was 1.08.

TABLE III.

CASES OF INFECTIOUS DISEASES NOTIFIED DURING THE YEAR 1909,
IN THE URBAN DISTRICT OF GOOLE.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.							TOTAL CASES NOTIFIED IN EACH LOCALITY.				No. of CASES REMOVED TO HOSPITAL FROM EACH LOCALITY.							
	At Ages—Years.							North Ward	South Ward	East Ward	West Ward	Central Ward	North Ward	South Ward	East Ward	West Ward	Central Ward	Rural	Total cases removed to Hospital.
	Under 1	1 to 5	5 to 15	15 to 25	25 to 65	65 and upwards													
Small Pox ..	..	..	..	..	..	..	..	23	10	24	23	8	19	11	21	14	5	..	70
Cholera ..	..	..	..	..	..	..	..	9	3	3	3	1	5	3	4	7	..	..	19
Diphtheria (including Membranous Croup) ..	88	1	17	63	5	2	5	9	4	7	9	..	2	..	3	1	..	..	6
Erysipelas ..	19	..	12	14	2	1	..	9	..	..	..	..	..	..	..	..	..	..	..
Scarlet Fever ..	29	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Typhus Fever ..	..	..	..	1	3	2	..	2	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever ..	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Relapsing Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever ..	..	..	..	..	2	2	..	..	4	..	..	..	..	2	..	..	..	..	2
Puerperal Fever ..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Plague ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pulmonary Tuberculosis Poor Law	6	..	..	..	..	6	..	3	1	..	1	1	..	..	..	..	..	..	..
Pulmonary Tuberculosis Voluntary Notification	10	..	..	1	1	8	..	3	2	3	1	1	..	..	..	..	..	..	..
Totals..	162	1	29	79	13	35	5	49	24	40	38	11	26	16	28	22	5	..	9

Isolation Hospital—Sanatorium, North Ward. Total available Beds - 82. Number of Diseases that can be concurrently treated—8

Diphtheria.

In my previous year's report I referred to a scheme for dealing with this disease, and I have now to report that complete success has attended our efforts. It was only in the beginning of the year that the disease gave us trouble, with the result that in March we put the scheme into operation in the most whole-hearted fashion. The St. John's Schools had always been a source of trouble, and on March 15th, 19th and 23rd cases were notified from the schools. With the help of the County officials 525 swabs were taken, i.e., all the children attending these schools had their throats swabbed and bacteriologically examined. This was begun on Thursday afternoon in the infants' department, and continued on the Friday until the whole school was gone through. Each child was sent home as soon as the throat was swabbed. On Sunday the result was telephoned from Wakefield that nine children out of the total number harboured the specific disease germs in their throats, and so were the means of continuing and conveying the disease to others.

In the meantime I saw the Managers of the schools, and the Clerk to the Education Authority, requesting that the schools be thoroughly cleansed, and we had all the departments fumigated. On Monday morning I attended at the schools, and excluded the nine children referred to. These were advised through their parents to consult their doctor, and where we found this was not being done their homes were visited, and the parents asked to send them to the sanatorium for treatment. There they were treated and kept under observation until they were reported as bacteriologically free from disease germs.

One of the children subsequently developed the disease.

These schools had been a constant source of worry in the past, and the result was that right up to the end of the year they gave us no further trouble.

I have also to report on the weakness of the scheme. On the 24th March, just at the time when we were engaged with the St. John's Schools, a child was notified who was in attendance at the Boothferry Road School, and as a result I visited these schools. I found that in one class a child had had diphtheria three months before, another child had a nasal discharge, and two teachers had sore throat. I swabbed all the children in the class, i.e., 42, and six were returned as positive. These were excluded, and recommended to either consult their own doctor or attend at the sanatorium.

Following upon these on April 2nd, 3rd, 8th (fatal), 12th and 15th, notifications were received, and all these were confined to the Infants' Department, Boothferry Road School.

I telephoned the County Council Authorities, but they were unable to cope with the amount of work involved, and so, unfortunately, these contacts were allowed to run loose during the Easter holidays, the result being that on

April 14 a notification was received from Edinburgh Street.

„ 16 „ „ Jacksonville,

This patient was a visitor for the Easter holidays, and illustrates the danger of children visiting the town, and this phase of the question has been observed many times.

April 18 a notification was received from Back North Street.

„ 18 „ „ Jefferson Street.

„ 19 „ „ Stanley Street.

„ 19 „ „ Marshfield Avenue.

„ 19 „ „ Second Avenue.

„ 21 „ „ Boothferry Road

(another visitor).

„ 22 „ „ Widop Street.

„ 26 „ „ Cottingham Street.

In all these cases as many contacts as possible were swabbed and followed up.

As giving an idea of the work involved, in addition to the 525 swabs taken at St. John's School, 196 more were taken and sent to the County Laboratory in connection with the foregoing cases, and all the school rooms were cleansed and fumigated.

Then on April 30th another notification was received, giving a total of 18 cases in April, with two deaths.

The notifications continued during May to the extent of 12. In one case the child had been ill for a week, and the parents only sent for a doctor on the fifth day of the disease, too late to save the child's life, death occurring a few hours later. The nurse, when swabbing the contacts, drew the mother's attention to another child who was actually suffering from the disease.

The scientific control of diphtheria depends on the thoroughness with which you are enabled to deal with the contacts. Practically in every one of the cases I have reported upon I could state definitely how the infection was received.

There were 12 cases notified up to May 10th, on which date four were received, and no further case was notified during the month, and only three in June, the presumption being that our methods of dealing with the disease proved successful, as not only was the outbreak arrested, but also no secondary cases arose.

For the remainder of the year the disease gave us no special trouble.

In this connection I desire to record my special thanks to the Committee, and especially to my Chairman, to the County Authorities at Wakefield, without whom we are almost powerless, and who gave us all the assistance they could, to the officials of my own department, and to the matron and charge nurse at the Sanatorium. It was only by their loyal co-operation that these results were obtained.

I now wish to direct attention to a different series of cases, which illustrates another phase of the disease, i.e., its endemic character or dependence upon localised causes.

In September especially there were 10 notifications of the disease from different parts of the town, and so far as our information went had nothing in common and no connection with each other. In eight days nine cases were notified, with two deaths.

In the "Bacteriology of Diphtheria," edited by Nuttall and Graham-Smith, and recently published, Dr. Newsholme says: "The specific micro-organism of this disease has a double cycle of existence, as have apparently the specific micro-organisms of enteric fever, erysipelas, scarlet fever, rheumatic fever, &c. One phase is passed in the soil, another in the human organism. One is saprophytic, the other parasitic, though it is not contended that there is any regular alternation between these phases. It is not strange, therefore, that epidemic prevalence of all the above diseases is favoured by deficient rainfall, if this is sufficiently long continued. This deficient rainfall implies a low subsoil water, and a subsoil above the level of this water, which is relatively dry and warm, probably the optimum conditions for the saprophytic life of the above pathogenic micro-organisms. The causes of the transition of the diphtheria bacillus from the saprophytic to the parasitic phase of life may be surmised both as regards (a) season, and (b) years of special epidemic prevalence.

"Diphtheria is more prevalent in autumn and in the early winter months, when the optimum temperature and the degree of humidity of the soil are rapidly disappearing, or have departed. It is also most prevalent after wet weather, occurring in or immediately following exceptionally dry years. Both these conditions tend to raise the ground water, and to drive out any pathogenic micro-organisms from the soil.

"The preceding working hypothesis may appear to give undue importance to climatic conditions as contrasted with personal infection. There is no reasonable doubt that personal infection is the chief means by which diphtheria is spread. Personal infection does not, however, explain why in some years diphtheria, although present in a district in an endemic form, does not spread, while in another year, in which only the same opportunities of personal

infection occur, it becomes extensively epidemic. Still less does it explain the occurrence of widely scattered epidemics, and even pandemics, in some years. To explain these the operation of wider general causes must be pre-supposed. It might be that the susceptibility of entire populations to the infection of diphtheria increases at times, though this is improbable ; or it might be that the diphtheria bacillus under certain conditions becomes more actively virulent and infective more remote from its saprophytic phase of life, and thus persons who can resist the ingress of the feeble fall victims to the more powerful micro-organism. The latter is probably the correct hypothesis, and the evidence already given clearly points to the conclusion, that of the external cultural conditions leading to increased virulence of the diphtheria bacillus, and greater readiness for assuming a parasitic life, exceptional deficiency of rainfall and consequent exceptional deficiency of moisture in, and exceptional warmth of, the subsoil form an essential part."

The opinion thus expressed from so high an authority deserves due consideration, but our experience points fairly conclusively to the fact that the disease is continued by means of the "carriers." Take for example the contact returns received within the last three weeks :—

- | | | | | | |
|-----|-------|----------|--------|-----------|-----------|
| (a) | One | positive | out of | fifteen | contacts. |
| (b) | One | " | " | eight | " |
| (c) | One | " | " | ten | " |
| (d) | None | " | " | six | " |
| (e) | Three | " | " | seventeen | " |

Did our methods not provide for the following up of these positive contacts the result would be that fresh cases of the disease would arise. Another conclusion I came to as a result of experience was, that in bright, sunny, dry weather these contact cases were soon returned negative ; whereas in dull, wet weather, they often required weeks before a negative result was obtained. In other words climatic conditions affected the life of the organism in its natural habitat, i.e., the throat and nose.

Several examples came under my notice last year of patients suffering from nasal discharges, which on bacteriological examination proved to be diphtheritic. I have grounds for presuming that there have been several of these going about unrecognised.

In this connection I might quote from a recent paper by Dr. Orr : "How do children become infected at school ? There can be little doubt that infection takes place indirectly through the use of pens, pencils, slates, books, &c., and from the desks, as well as directly from child to child. The infective saliva or nasal discharge finds its way to these articles in various ways, which are so evident as not to require mentioning. On slate, wood, paper and cloth the organisms

of diphtheria live for some days, and under certain circumstances for weeks. Dycke found that diphtheria bacilli from an agar culture lived on oiled-painted wood for four days, while Nege's experiments with paper and linen gave the following results :

		Kept in the dark.		Kept in the light.	
		Dry.	Moist.	Dry.	Moist.
Paper	...	4 days.	8 days.	...	3 days.
Linen	...	12 days.	18 days.	...	5 days.

“ My own experiments, carried out with a mixture of serum culture and saliva, to imitate as far as possible natural conditions, gave somewhat similar results. The materials, after being smeared with the mixture, were allowed to remain at the temperature of the air and exposed to its drying influence, as would occur normally.

“ Cultures were made from the materials with the following results, which indicate the periods during which positive results were obtained :—

Exposed (diffused daylight).		Dark (cupboard).
Slate	... 3 days.	10 days.
Wood	... 3 days.	23 days.
Paper	... 10 days.	35 days.

These results show that the organisms persist under circumstances for long periods, especially in the dark, and point to the necessity for disinfection. Especially do they show the danger of paper as a means of carrying the organisms. Plasticine, a plastic modelling clay, is now largely used in schools, and is claimed to be antiseptic. Eighteen specimens of this, of various colours, were smeared with the mixture of saliva and bacilli; some were left in diffused light and others were kept in the dark. It was found that the organism preserved its vitality in the former for two to three days and in the latter for three to five days. The danger of infection from this material is evident. Although the time during which it remains infective is short a day or two is quite enough for the infection of many members of a class.”

There were 88 cases notified, with 5 deaths, or 5·6 per cent. of the patients notified, which is the lowest mortality since the beginning of the epidemic.

Epidemic or Summer Diarrhœa.

The deaths due to summer diarrhœa numbered four, compared with 16 during the previous year. Climatic conditions were in the main responsible for this lessened number.

Whooping Cough.

Whooping cough was mildly epidemic in the earlier part of the year, and accounted for four deaths.

Measles.

There was only one death from measles, and we were fortunate in escaping an epidemic prevalence of this disease.

Scarlet Fever.

Although 29 cases of scarlet fever were notified, no death was registered. This is the smallest number of notifications received for a good many years.

Enteric Fever.

Six patients were notified, with one death. Three of the cases occurred in the East Ward in two houses. There was no connection between the two households, and no sanitary defects were found.

Puerperal Fever.

Four patients were notified as suffering from this disease. Two of these were removed to the Sanatorium, as the home conditions were very unsatisfactory, and one death took place.

Cancer.

There were fourteen deaths from cancer, compared with nine in 1908, 13 in 1907, 14 in 1906, 14 in 1905, 6 in 1904, 25 in 1903, 12 in 1902, 7 in 1901, and 6 in 1900.

Tubercular Diseases.

There were 17 deaths from pulmonary tuberculosis and 14 from other tubercular diseases, making a total of 31 deaths from tubercle, and giving a death rate from the diseases caused by tubercle of 1·6, compared with 1·9 in 1908, 2· in 1907, 2·1 in 1906, 1·6 in 1905, and 2·4 in 1904.

The death-rate from consumption or tuberculosis of the lungs was ·9, compared with ·9 in 1908, 1 in 1907, 1 in 1906, ·5 in 1905, and ·8 in 1904.

In addition to the Public Health (Tuberculosis) 1908 Regulations, which deal with patients under the care of Poor Law medical officers, on the 19th June I wrote to all the doctors in the town to the effect that the Council had adopted the voluntary notification of consumption, and asking for their co-operation.

Five notifications were received under the Poor Law Regulations, and 10 under the system of voluntary notification.

In all these cases a visit was made, and cards were left at the house containing information regarding the disease. In one case representation was made to the Board of Guardians and an increase

of outdoor relief was granted to the father, who was suffering from the disease. In another case the patient was connected with the milk trade, where contamination of the milk might easily take place. A further patient was a domestic servant, and was an instance of the great want of a sanatorium for such cases, and another patient resided at a club.

In all cases where death took place the relatives were advised to strip the paper off the walls of the room, and disinfection was carried out.

Leaflets regarding the disease were distributed amongst the offices, &c., in the town.

In the memorandum issued by the Medical Officer of the Local Government Board on administrative measures against tuberculosis, he gives it as his opinion that "it may confidently be expected that administrative measures will enable sanitary authorities gradually to bring tuberculosis under their control, and to secure that it shall become as much a disease of the past in this country as leprosy has become."

Arranged according to Wards the deaths from tubercle were distributed as follows:—

5	in the North Ward,	5	in the South Ward.
8	,, East	6	,, West
7	,, Central		

Chicken Pox.

Chicken pox was not prevalent during the year, although one death took place from the disease, that of a child, upon whom an inquest was held. An exactly similar record appears in my previous year's report.

Vaccination Returns.

The Vaccination Act, 1907, which came into force on the 1st of January, 1908, provides that parents desiring to obtain exemption from penalties in respect of the non-vaccination of children shall be entitled to do so on making a statutory declaration of conscientious objection to vaccination. What advantage has been taken of this simplified procedure in Goole is shown by the following figures:—

During 1906 there were 11 conscientious objection certificates.

,,	1907	,,	30	,,	,,	,,
,,	1908	,,	99	,,	,,	,,
,,	1909	,,	171	,,	,,	,,

or more than a quarter of the total births, in addition to which many of the latter have only been vaccinated in one place. The future alone can tell what effect this disregard of vaccination will have as regards an epidemic of smallpox. It behoves us to keep our hospital in readiness.

VACCINATION RETURN FOR THE PERIOD 1st JANUARY
TO 30th JUNE, 1909, inclusive.

Births registered	...	...	...	...	353
Successfully vaccinated	...	...	...	..	238
Certificates of statutory declarations of conscientious objection	...	...	...	...	89
Dead—unvaccinated	...	...	...	...	19
Postponed by Medical Certificate	...	...	...	...	7
					<hr/> 353 <hr/>

Number of statutory declarations of conscientious objection received during calendar year 1909 171

SUPPLEMENTAL RETURN FOR THE PERIOD 1st JANUARY
TO 31st DECEMBER, 1908, inclusive.

Births registered	...	...	...	...	705
Successfully vaccinated	...	...	...	...	526
Insusceptible of vaccination	...	...	...	...	8
Certificates of statutory declarations of conscientious objection	...	...	...	...	99
Dead—unvaccinated	...	...	...	...	59
Postponed by Medical Certificate	...	...	...	...	2
Removal to districts the Vaccination Officer of which has been duly apprised	...	...	...	...	3
Removal to places unknown, or which cannot be reached, and cases not having been found	...	...	...	...	8
					<hr/> 705 <hr/>

Total number of certificates of successful primary vaccination of all ages received during the calendar year 1909 470

Housing Accommodation.

Some time ago a commencement was made with the erection of workmen's houses upon the garden city plan in Pasture Road. The houses were erected in pairs. No back street was provided, but a passage three feet wide was provided within the curtilage of each house to get to the back. The Council did not at first care for such houses, in the belief, I think, that the cost of removing the refuse would be increased. I must congratulate the Council on reconsidering their decision to enforce a 5ft. clear space at the sides of semi-detached dwellings for scavenging purposes. Five feet is more than is necessary, and the effect was seen in the immediate check

given to the extension of the garden city principle, which from a health point of view it is most desirable to encourage.

Since the restriction has been removed, plans have been submitted for a large number of semi-detached workmen's dwellings and passed by the Council, a very wise decision, and one that gives very considerable satisfaction to the Health Department. One has only to go down and speak to the tenants of these houses to hear with what pride and satisfaction they regard their little castle, with its partial detachment, and see the children playing in their own garden, compared with unsightly, unpaved back lanes.

It is desirable that the Council should do all in their power towards the provision of workmen's houses on such lines. The following advantages are obtained:—(1) The air space is increased, and by the provision of an opening between each pair of houses adequate ventilation is obtained all round the houses. (2) The elimination of the back streets is a distinct advantage, inasmuch as these back streets are frequently a source of danger to health through being in a dirty and insanitary condition. (3) The risk of fire is reduced.

Under the model bye-laws it is possible to erect 56 houses to the acre, and as the cost of making streets amounts to a considerable portion of the price of building land, it is obvious that if a smaller number of houses are erected the cost per house will be very large, unless the expenses of street making can be reduced. It is, I think, possible to persuade the owners of land that it is advisable for them to sell their land for less money and give more to each house, as by that means they will sell more of their land and obtain a better class of house upon it, and so recoup themselves for the diminution in price. If, however, the cost of making streets is to be equally large, whether there are 12 or 56 houses to the acre, little progress can be made in providing healthy and airy workmen's dwellings. The Local Government Board have recently lent a sympathetic ear to proposals for reducing the cost of road making where the owners undertake to limit the number of houses to be erected. Of course, adequate streets must be provided in all cases, but where there is no likelihood of a street ever becoming an important thoroughfare, and where it serves less than 30 houses, the Council might very wisely help the landowner to reduce the cost of his road making, provided that he is prepared to limit the number of houses to be erected to say 12 to the acre. I notice that in some of the newer houses the front room floor is laid direct on a bed of concrete and attached to it by means either of screeds of wood placed in the concrete, or by there being a top coating of breeze concrete into which the nails are driven. This is a distinct advantage, inasmuch as it does away with a large cavity under the floor, and such cavity in Goole is frequently damp,

and by reason of its inaccessibility a breeding place for filth of all descriptions. Where the floor of the front room is wood and the floor of the back room tiles this method should be encouraged as far as possible. In such houses it is difficult to obtain a thorough draught of air underneath the floors, and there is consequently a tendency for the wooden floors of the front room to rot, and during such process they are naturally unhealthy.

After numerous meetings and prolonged discussion, a new set of bye-laws for new streets and buildings has finally been decided upon. It cannot be said that this was done without due consideration, as after they had been approved by the Local Government Board objection was taken to them by the builders of the town, when these objections were gone into seriatim, and a final draft agreed upon and sent up to the Local Government Board for their approval.

Nothing has yet been done to Paradise Place, Wesley Square, Park Terrace, and Duckels Buildings. These properties have previously been reported upon.

The time is now suitable for action being taken with regard to the property in Jackson's Yard.

During the year the supply of working class houses has practically been equal to the demand, so that no time need now be lost in improving the condition of the older houses in different parts of the town, especially those already enumerated.

Milk Supply.

The County Council leaflets on "Clean Milk" have been freely distributed. The samples of milk taken during the year for chemical analysis have all, without exception, been favourably reported upon by the analyst, a different record than that obtained for the previous year. In one instance in which the milk was suspected of being tuberculous, two samples were taken at different times for bacteriological examination, the result of which, however, was negative.

Sewerage and Drainage.

The sewerage scheme is still on the way, but there is no visible progress to report.

Methods of Dealing with Infectious Disease.

On receipt of the notification of a case of infectious disease the house is at once visited, and if removal by the medical attendant is desired, this is effected promptly. After removal of the patient and the infected clothing, the house is fuginated. In regard to patients suffering from diphtheria, all the contacts have their throats swabbed, and the contact carriers are followed up. The infected clothing is disinfected by steam at the sanatorium.

Water Supply.

The water supply of the town is in the main derived from public service, having for its source the new red sandstone at Pollington. An ample supply is obtained, wholesome in character and free from risk of pollution. There is no liability to plumbo.-solvent action.

Public Analyst's Laboratory,
67, Surrey Street, Sheffield.

REPORT ON A SAMPLE OF DRINKING WATER

Received from the Goole Urban District Council on May 4th, 1909.

Physical Characters :—

Suspended Matter : Traces.

Appearance of a column two feet long : Clear and colourless.

Taste : Normal. Odour : None.

On Analysis, the sample gave the following results :—

Grains per gallon.

Total Solid Matter ... 17·30 ; which lost on Ignition ... 5·54 grs.

Chlorine 1·30 ; equal to Sodium Chloride 2·13 grs.

Nitrogen in oxidised equal to Nitric Acid

forms 0·81 ; (anhydrous) 3·12 grs.

Poisonous Metals (Lead, &c.) : None.

Degrees of Hardness 7·3. (Each degree of hardness represents a soap-destroying power equivalent to one grain of chalk per gallon).

Parts per million.

Reducing Power..... 0·0 (representing the oxygen absorbed by the organic and other oxidisable matters in one million parts of water).

Free & Ureal Ammonia 0·02 parts per million.

Albuminoid Ammonia 0·04 ,, ,,

These results show the sample to be free from other than normal traces of readily-changeable organic matter. The presence of nitrates is abnormal, but these salts appear to be a natural constituent of water from the neighbourhood, and therefore have not the adverse significance that they would have in the case of waters derived from other geological formation. The figures show the water to be very similar to those previously received from your authority.

In my opinion the water would be found to be a good source of supply for drinking and general domestic purposes.

(Signed) G. E. SCOTT SMITH.

June 2nd, 1909.

Sanatorium Report.

At the close of the year 1908 there were 10 patients in the Sanatorium. 102 were admitted during the year, making a total of 112 patients treated during the year, with 8 deaths, 4 from diphtheria, two from enteric fever, and two from puerperal fever. This is the first year we have admitted cases of puerperal fever in the sanatorium. Their home conditions were so unsatisfactory that I readily agreed to their admission, in the hope that their lives might be saved.

Four deaths out of 83 cases of diphtheria is a very good hospital record. The diseases treated were as follows:—

URBAN.

Scarlet Fever	19
Diphtheria	70
Enteric Fever	6
Puerperal Fever	2
						97

RURAL.

Diphtheria	5
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Three tracheotomies were performed, and all recovered.

The total expenditure for the Council's financial year was £586 16s. 11d.

The new Joint Hospital will be ready for the reception of patients in the beginning of 1910.

BIRTHS, DEATHS, AND NOTIFICATIONS IN EACH WARD.

	NORTH WARD.			SOUTH WARD.			EAST WARD.			WEST WARD.			CENTRAL WARD.		
	Births.	Deaths.	Notifications.	Births.	Deaths.	Notifications.	Births.	Deaths.	Notifications.	Births.	Deaths.	Notifications.	Births.	Deaths.	Notifications.
1909.															
January	7	5	1	15	4	1	12	8	2	7	4	2	7	2	0
February	11	2	0	14	6	1	13	9	6	6	1	2	6	5	0
March	17	5	6	16	7	0	15	4	3	7	3	3	4	7	2
April	21	4	9	18	5	4	14	9	3	5	2	5	5	4	2
May	22	5	4	6	5	0	10	7	6	9	2	5	3	4	1
June	18	2	3	10	2	0	17	5	3	10	2	1	8	3	0
July	13	6	2	14	5	1	20	2	4	10	4	3	7	4	0
August	13	6	1	11	2	5	12	1	4	5	1	4	6	1	0
September	8	6	6	14	2	2	11	7	5	6	2	3	7	3	0
October	13	4	3	20	2	4	18	7	0	3	1	2	4	2	1
November	17	5	5	18	5	2	23	8	2	2	3	4	4	4	3
December	16	7	4	10	6	1	18	7	0	3	2	1	8	5	0

METEOROLOGY.

RAINFALL in 1909 at GOOLE, in the County of York.

Rain Gauge.	{	Diameter of Funnel at top, 5in. Height of Top—above ground, 1ft. „ „ „ above sea level, 18ft.
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Councillor Grayburn has kindly furnished me with the following particulars:—

Rainfall.				Temperature.		
Month.	Total Depth.	Greatest fall in 24 hours.	Number of Days on which ·01 or more fell.	Max. ^o	Min. ^o	Mean. ^o
	Inches.	Depth.				
Jan.	·55	·10	9	45	21	30
Feb.	·48	·17	7	55	22	35
March*	2·31	·88	18	55	21	36
April	2·25	·68	13	56	32	44
May	1·27	·49	7	68	40	48
June	3·43	·73	15	67	41	52
July	2·49	·53	13	63	44	55
August	3·61	1·23	14	71	50	60
Sept.	1·68	·39	13	69	44	55
Oct.	2·11	·41	15	65	30	52
Nov.	·35	·15	6	56	28	41
Dec.	3·58	·73	18	52	18	39
Total	24·11		158			

* 5 days with slight snow.

TABLE C. 1909.**GOOLE URBAN SANITARY DISTRICT.****WATER SUPPLY—**

Any development during 1909? No.
 Developments still needed Storage Reservoir ..
 Has public supply been continuous? Yes.
 Is the water plumbic solvent? No.
 Any samples tested for lead during 1909? .. No.

SEWERAGE—Developments during 1909.. .. None.
 Developments still needed Extensions
 Special Sewer Ventilators—Kind in use? a few upright shafts.
 Are they satisfactory? .. As far as they go.
 Any complaints as to offensive manholes? .. Yes.

SEWAGE DISPOSAL—Any complaint as to outfall works? .. No.

SCAVENGING—Any inadequacy, and where? .. No.

BY-LAWS—Any adopted or sanctioned during 1909?.. New Streets and Buildings.

ADOPTIVE ACTS—Any steps taken for the consideration, adoption or application of

- (a) Notification of Births Act, 1907 No.
 (b) Public Health Acts Amendment Act, 1907 Yes.
 What Sections? Parts II., III., IV. and V.
 (c) Other Adoptive Acts.. .. None.

Regulated Buildings, Trades, &c.	No. in District.	No. on Register.	No. of Inspections.	General Condition.	Legal Proceedings.
Common Lodging Houses ..	4	4	110	Moderate.	0
Canal Boats .. ..	..	679	120	Good.	0
Slaughter Houses ..	2	2	367	Fair.	0
Cowsheds	5	5	31	Fair.	0
Offensive Trades ..	2	2	40	Good.	0

COWSHEDS—Any special inspection made during 1909? No.

Any milk samples tested for tubercle, and with what result? .. One, negative.

INFECTIOUS DISEASE—

Any suspected spread by rats, dogs, cats, fowls, flies, or fleas No.

ISOLATION HOSPITAL—

Any observation on adequacy or efficiency No.

SCHOOLS—

Any matter calling for special attention of School Medical Officer..Cleanliness.

MIDWIVES ACT, 1902—

Are there any uncertified women attending confinements without a doctor Yes.

DWELLINGS—Any occupied houses unfit for habitation? Yes.

Any overcrowding of persons in houses? Yes.
 Any action taken under the Housing of the Working Classes Acts? .. No.
 Is house-to-house inspection systematically made? No.
 Are records kept? No.
 Any special activity in house building? Yes.
 General character Cottages and Villas.
 Do the new houses accord with By-laws? Yes.
 Who deals with plans? Surveyor.

INFANTILE MORTALITY—What organised effort to control it?

By distribution of advice and visits.
 Is Health Visitor appointed by S.A.? No.
 By other body? No.

PREVENTION OF CONSUMPTION—Any system of notification? Yes, voluntary.

Any local treatment of Patients on sanatorium lines? No.
 Any sanitary inspection of patients' houses? Yes.
 Any disinfection of ditto? Yes.
 Any distribution of advice? Yes.
 Any action re spitting? No.
 Any disinfection of public rooms, vehicles, &c.? No.

NUISANCES—

Total No. of Nuisances in hand at close of 1908 .. 8. At close of 1909 .. 5.
 Reported during 1909 .. 252. Abated during 1909 .. 247.
 Total No. of Summonses or other Legal Proceedings None.
 No. of Sink wastes disconnected during 1909 12.
 " " trapped " 2.
 No. of Closets newly constructed during 1909 .. Kinds..
 " reconstructed " 43. Kinds..Ash pits and Middens.

METEOROLOGY—Mean Temperature for Year 1909. 45°. Rainfall .. 24.1.

What action has been taken in regard to the following matters?

Seizures of Unsound Food .. 4. Prosecutions.. None.
 Samples under Sale of Food and Drugs Acts.. 5. Prosecutions.. None.
 Smoke observations taken..None. Legal Notices..None. Summonses None.

BIRTHS DURING 1909—Males.. 338. Females.. 129. Total 467.

Number illegitimate, included in the above 26.

DEATHS DURING 1908—(1) Gross Deaths.. .. 261.

(2) Nett Deaths on which the rates are calculated 254.

Number uncertified, included in the above None.

SANITARY REQUIREMENTS OF DISTRICT, AND SUGGESTIONS OF
 MEDICAL OFFICER OF HEALTH:—

That the Council make a public road from the north end of Pasture Road to Westfield Bank. This would give another outlet to the town, encourage the Garden City development, allow easy access to the Sanatorium, and still more important make a short route to the free open space at Westfield Banks for the children of the town.

TABLE B 1909.

FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES & HOMEWORK.

1.—INSPECTION.

	Premises.				No. of Inspections.		No. of Written Notices.		No. of Prosecutions.	
Factories	46	...	2	...	0	...
Workshops	164	...	0	...	0	...
Workplaces	16	...	0	...	0	...
Total	226	...	2	...	0	...

2.—DEFECTS FOUND.

Particulars.	Number of Defects.						Number of Prosecution	
	Found.	Remedied.	Referred to H.M. Inspector.					
†Sanitary accommodation, unsuitable or defective ...	1	...	1	...	1	...	...	0
Illegal occupation of underground	1	...	1	...	1	...	...	0
	<hr/>		<hr/>		<hr/>			<hr/>
Total ...	2		2		2			0

3.—HOME WORK

Nature of Work.	Lists.	Lists received from Employers twice in the year.						Inspections of Outwork's' premises.
		Outworkers.	Forwarded Notices to other Councils.	Con-tractors.	Week-men.	served on Occupiers.	Failing to send lists.	
Wearing Apparel—making, &c.	4	...	2	...	2	...	2	...

4 —REGISTERED WORKSHOPS.

Workshops on the Register (S. 131) at the end of 1909 ... 74

5.—OTHER MATTERS.

Class.	Number
Matters notified to H.M. Inspectors of Factories :—	
Failure to affix Abstract of the Factory and Workshop Act (S. 133) ...	
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory Act (S. 5)	
Notified by H.M. Inspector ...	1
Reports (of Action taken) sent to H.M. Inspector ...	1
Other ...	
Underground Bakehouses (s. 101) :—	
Certificates granted during the year...	0
In use at the end of the year ...	1

† For districts not in London, state here whether Section 22 of the Public Health Acts Amendment Act, 1890, has been adopted by the District Council; and if so what standard of sufficiency and suitability of sanitary accommodation for persons employed in factories and workshops has been enforced.—Yes, Secretary of State's Order of February, 1903.

Sanitary Inspector's Annual Report, 1909.

TO THE MEDICAL OFFICER OF HEALTH.

Sir,—I have pleasure in submitting my **Annual Report** on Sanitary Work and other improvements carried out in my Department during the year 1909:—

No. of Inspections made (exclusive of Workshops)	...	...	2587
„ Written Notices served	...	...	270
„ Verbal Notices served	...	...	42
„ Statutory Notices issued by Order of the Council	...	...	8
„ Summonses issued	...	...	0
„ Nuisances not abated at close of year	...	...	5
„ House Drains repaired and defects remedied	...	...	38
„ Back Yards re-paved or repaired	...	...	14
„ Kitchen Floors repaired	...	...	7
„ Removals of Fowls, Rabbits, &c.	...	...	5
„ Removals of Pigs	...	...	1
„ Dirty Houses and Out-Premises cleansed, &c.	...	...	8
„ Dirty Stables cleansed	...	...	6
„ Defective and Choked W.C.'s	...	...	4
„ Defective W.C. Soil-pipes and ventilators	...	...	1
„ Sink Pipes defective, new ones provided	...	...	12
„ Trapped Gullies fixed in place of Cesspools	...	...	0
„ Houses Overcrowded	...	...	4
„ Houses Disinfected and Cleansed after Infection	...	...	122
„ Manure and other Refuse removed	...	...	14
„ Miscellaneous Nuisances dealt with	...	...	87
„ Privy Midden Closets converted into Box Closets	...	...	43
„ Soil Boxes provided in place of Privy Middens	...	...	80
„ Urinals erected on private property	...	...	1
„ Urinals repaired	...	...	2
„ Defective and Broken Soil Boxes replaced by galvanized iron ones	...	...	138
„ Defective Construction of Closet Seats (altered)	...	...	50
„ Insanitary Back Roads repaired	...	...	2
„ Defective Downfall Spoutings re-fixed	...	...	7
„ Offensive Trades	...	...	2
„ Houses without a Supply of Water	...	...	5
„ Soil Boxes and Dry Dust Boxes emptied weekly	...	...	3830
„ Ash-pits emptied once every month	...	...	332
„ Loads of Nightsoil removed during the year	...	...	8618
„ Loads of Lumbbersome Refuse removed (Monday and Friday collection)	...	...	1396

Please note that several Sanitary Defects are occasionally included in one Notice, hence the number of Nuisances abated above the number of Notices.

CANAL BOATS ACTS, 1877-84.

No. of Boats Inspected during the Year ... 120

Additional Inspections are often made to ascertain if defects, &c., have been remedied when Notice has been served.

No. of Boats on the Register	...	...	...	...	...	679
„ Highest number on the Register	...	...	...	...	...	875
„ Boats complying with the Acts	...	...	...	...	...	100
„ Boats contravening the Acts	...	...	...	...	...	20
„ Contraventions	...	...	...	...	...	22
„ Transference of Ownership	...	...	...	...	...	21
„ Duplicate Certificates issued	...	...	...	...	...	16
„ Neglect of Owners not properly Marking and Numbering the Boats	...	...	...	...	...	4
„ Cases of Overcrowding	...	...	...	...	...	0
„ Young Girls occupying Cabins	...	...	...	...	...	1
„ Boats' Cabins re-painted	...	...	...	...	...	6
„ Dirty Cabins requiring more attention	...	...	...	...	...	2
„ Provision of Water-cask	...	...	...	...	...	1
„ Notifications of Infectious Disease	...	...	...	...	...	0
„ Boats requiring re-registration because of structural alterations to Cabins	...	...	...	...	...	1
„ Boats Registered	...	...	...	...	...	7
„ Boats Cancelled off the Register	...	...	...	...	...	196

The Cabins of the 120 Canal Boats inspected were registered to accommodate the following number of persons:—Aft Cabins, 323 adults and 122 children; Fore Cabins, 220 adults and 32 children, whilst the actual number occupying were 136 men, 63 women and 65 children.

The Local Government Board have for some time been anxious to ascertain as near as possible the number of Canal Boats afloat, and for which cabins are registered as dwellings. The Honourable Board issued a circular letter to all Registration Authorities in the country with instructions to ascertain the above particulars. You can therefore understand that this has necessitated a great deal of extra labour in this Department, especially when you consider the Canal Boats Act came into force in 1877. Since that date many hundreds have been broken up, sunk, and in many other ways have become unusable. Letters had to be written and sent to owners all over the country asking if such boats on our Register were still owned by them. Many of the letters were returned through the Dead Letter Office marked in the usual way “Not known,” &c.

This information cannot be accurately obtained, for the simple fact that the Acts compel an owner of a boat in which cabins are used as dwellings to register, but the Acts do not compel him to cancel off the Register. Any registered boat which may have become unusable, therefore, such boats for all times remain on the Register and add to the numbers therein.

SLAUGHTER-HOUSE, MARKET AND TOWN SEIZURES.

Daily inspections are made at the Slaughter-Houses, and weekly inspections at the Market.

During the year the carcasses of 8 Beasts have been examined by your Medical Officer of Health; 2 of these carcasses were seized and destroyed, 6 were passed with the exception of all the offals, which were likewise seized and destroyed. About 20 stones of one carcase of a beast were also destroyed. Two Sheep which had been mauled by dogs were examined, when nearly the whole of both carcasses were destroyed, and also the carcase of a Calf, and 20 baskets of Strawberries.

Occasionally it is found necessary to destroy many small items of Foodstuffs which do not appear in this Report, such as Hard Livers, Decayed Fruits, &c. It is gratifying to ourselves and creditable to the Butchers, in saying that we never have the slightest annoyance or difficulty in carrying out our duties at the Slaughter-Houses.

NIGHTSOIL SCAVENGING.

During the latter part of the year under review a great change has taken place in the disposal of all Nightsoil, all of which is now buried under low-lying land. Your Council for some years have had under consideration for a more improved and better system for its disposal other than making large, unsightly and dangerous tips in many places in their district. After due consideration your Council adopted the above system, and to encourage contractors to respond thereto, they decided to give a more favourable consideration to those contractors who were prepared to bury all Nightsoil in the ground to a depth of not less than eighteen inches, and also with the same thickness of earth for covering. Eventually the three districts were secured by Mr. John Corner, who, since his commencement four months ago, has given entire satisfaction.

ANNUAL COLLECTION OF NIGHTSOIL AND LUMBERSOME REFUSE.

				Loads of Nightsoil.	Loads of Lumbersome Refuse.
No. 1	District	...	...	2421	251
No. 2	District	...	...	2970	606
No. 3	District	...	...	3227	539
				<hr/> 8618	<hr/> 1396
				<hr/> Approximately 6500 Tons.	<hr/> 470 Tons.

Assuming the Population to be 19,000, I estimate the average amount of Nightsoil removed per annum to be 6cwt. per head of the population, and for Lumsome Refuse per annum, $\frac{1}{2}$ -cwt. per person (nearly).

COWSHEDS, MILKSHOPS AND DAIRIES.

There are five Registered Cow-keepers within the Council's boundary; also 29 Purveyors of Milk, including those from the country districts. During the year under review the names of two Purveyors of Milk have been entered on the Register. The Cowsheds in the District have been regularly inspected, and, with the exception of a few minor complaints, which have received attention, there has been no further cause of complaint.

Pamphlets issued by the County Council have been circulated in the District, calling the attention of Cowkeepers and Purveyors to many points of cleanliness, and for improved habits in dealing with Milk for public consumption.

FOOD AND DRUGS ACT.

During the year five samples of New Milk have been purchased and forwarded to the County Analyst. All the samples were reported as being of good quality. Many samples are also taken during the year by the County Council's Food Inspectors.

PUBLIC MORTUARY.

Five bodies have been conveyed to the Mortuary during the year. All were strangers to the town with the exception of one, that of a boy nine years of age. Much attention is given to keeping the Building and its approaches clean and tidy.

WATER ANALYSIS.

No Samples of Water have been taken during the year under review, although where we have had suspicion or any complaints a letter offering suggestions has been sent to the owners, and in this way we have succeeded in every case in having the town's supply put on to the properties.

COMMON LODGING HOUSES.

There are four Registered Common Lodging Houses within the Council's boundary, all of which have been regularly inspected. The dock extension and a new railway line has caused many extra men to come into the town in search of work, mostly single men. This has caused overcrowding on many occasions.

The four Common Lodging Houses (none of which are adapted or suitable for such) have only bedroom accommodation for not more than 80 lodgers, therefore, under the circumstances, to provide for the influx of lodgers, the best possible means and more frequent inspections had to be adopted in making provisions to suit the circumstances. These facts were reported to your Council, who have, I am pleased to say, taken the matter up seriously, with a view to the early erection of a suitable and up-to-date Model Lodging House.

FRIED FISH SHOPS AND RESTAURANTS.

These shops and restaurants, where food is provided for public consumption, have been frequently inspected, and found clean. Where insanitary defects have been discovered the same have been remedied.

NUMBER OF INSANITARY ASH-PITS DEMOLISHED AND GALVANIZED IRON SOIL-BOXES SUBSTITUTED DURING THE YEAR.

			No. of Ash-pits Demolished.			Double Pits.			Single Pits.			No. of Closets attached to Pits.			No. of Boxes provided in place. No. of W.C.'s.		
George Street, Old Goole	...	...	2	...	0	...	2	...	2	...	2	...	2	...	2	...	0
"	"	...	2	...	2	...	0	...	4	...	4	...	4	...	4	...	0
"	"	...	6	...	5	...	1	...	11	...	15	...	15	...	15	...	0
"	"	...	3	...	3	...	0	...	6	...	8	...	8	...	8	...	0
"	"	...	4	...	2	...	2	...	6	...	6	...	6	...	6	...	0

George Street	...	...	...	1	...	1	...	0	...	2	...	2	...	0
Couper Street, Old Goole	...	...	...	1	...	1	...	0	...	3	...	3	...	0
Swinefleet Road	...	...	...	1	...	0	...	1	...	1	...	1	...	0
„	...	...	...	1	...	1	...	0	...	2	...	2	...	0
Back South Street	...	...	...	1	...	0	...	1	...	2	...	2	...	0
Barge Dock Side	...	...	...	1	...	0	...	1	...	2	...	2	...	0
Capstan Street	...	...	...	2	...	2	...	0	...	8	...	8	...	0
Albert Street	...	...	...	2	...	0	...	2	...	4	...	4	...	0
Alexandra Street	...	...	...	2	...	2	...	0	...	4	...	4	...	0
Edinburgh Street	...	...	...	1	...	1	...	0	...	2	...	2	...	0
„	...	...	...	4	...	3	...	1	...	7	...	7	...	0
Hawthorne Terrace	...	...	...	1	...	0	...	1	...	2	...	2	...	0
Church Street	...	...	...	3	...	3	...	0	...	12	...	12	...	0
Third Avenue	...	...	...	1	...	1	...	0	...	2	...	2	...	0
„	...	...	...	1	...	1	...	0	...	2	...	2	...	0
„	...	...	...	2	...	2	...	0	...	4	...	4	...	0
Boothferry Road	...	...	...	2	...	0	...	2	...	2	...	0	...	2
				44	30	14	90	94	2					

DISINFECTING STATION.

All Bedding, wearing apparel, &c., belonging persons suffering from infectious disease have been carefully dealt with and thoroughly Disinfected; also similar precautions have been taken in cases of Consumption notified.

I am, Sir,

Yours faithfully,

W. H. ELLIS.

Sanitary Inspector.

BEASTS, SHEEP, PIGS AND CALVES SLAUGHTERED AT THE
COUNCIL'S SLAUGHTER-HOUSE.

1909.

	Beasts. 1s. 6d.	Sheep. 3d.	Pigs. 6d.	Calves 9d.
January	130	168	203	—
February	111	148	182	—
March ...	111	147	145	—
April	99	165	117	13
May	132	256	120	2
June	100	249	99	—
July	134	331	125	—
August ...	102	261	64	—
September	102	214	99	2
October	150	251	138	2
November	115	171	129	—
December	106	157	183	—
	1302	2518	1604	19

SUMMARY.

	1908.	1909.	Decrease.	Increase.
Beast ...	1544	1392	152	—
Sheep ...	2326	2518	—	192
Pigs ...	1830	1604	226	—
Calves ...	26	19	7	—

Care and attention is exercised by the Superintendent in keeping the premises clean and in a sanitary condition.

These premises have been erected for upwards of thirty-five years, and during that time have (until several coal hoists were erected in the vicinity) served the purpose of the Butchers and was considered a fair good Slaughter-house.

Since the erection of the coal hoists and the extra number of steamers which invade their locality for loading coal, it has become a source of nuisance, and unprofitable to the Butchers in having carcasses of meat, &c., literally covered with coal dust and smoke. This the Butchers have resented, and have made several appeals through their Association to your Council, begging them to provide a more convenient and up-to-date building. Your Council have had the matter under consideration for some time, and have made many efforts to secure a suitable site to enable them to conform with the requirements of the Butchers.

PORT OF GOOLE.

Table showing Number and Tonnage of Vessels which have arrived during the
Years 1902 to 1909 inclusive.

Years	Number of Vessels		Total No. of Vessels, Foreign and Coastwise	Tonnage		Total Tonnage, Foreign and Coastwise
	Foreign	Coastwise,		Foreign	Coastwise	
1902	1377	1098	2475	531943	328178	860120
1903	1336	1103	2439	537018	329897	864918
1904	1362	1232	2594	558864	384209	940073
1905	1548	1511	3059	613797	435110	1049207
1906	1892	1737	3629	758820	520275	1279095
1907	2097	1723	3820	874417	515385	1389832
1908	1896	1722	3618	783228	509959	1293187
1909	1979	1937	3916	845575	565346	1410921

